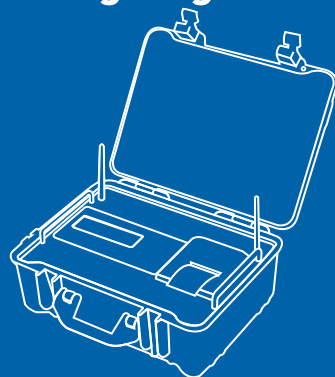


# RW-2201B

Vehicle Weighing Scale



**CAS**

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# 1. Introduction

Thank you for purchasing the CAS RW-2201B Series weighing indicator. We have designed this equipment with many advanced features, high quality construction, and user-friendly menu driven programming. We are confident that you will find the CAS RW-2201B Series will meet all of your most demanding needs. CAS indicator is shaped firmly and delicately designed to coincide with the special requirements of several industrial fields and includes many functions and various external interfaces. Also, it contains help display functions to be used easily.

Before using RW-2201B, It is recommended to read this manual carefully and to apply the function application fully.

## Precautions

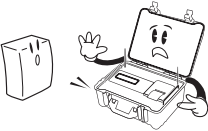


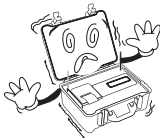
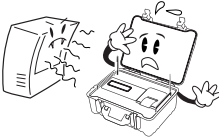
Observe the following safety precautions :



### Warning

When any damage or defect occurs, contact your CAS authorized dealer immediately for proper repair.	Insert plug firmly to wall outlet to prevent electric shock.	Avoid placing the scale near heater or in direct sunlight.
Do not pull the plug by its cord when unplugging. Damaged cord could cause electric shock or fire.	To prevent from fire occurring, Do not place or use the scale near flammable or corrosive gas.	To reduce electric shock or incorrect reading, Do not spill water on the scale or place it in humid condition.

## ! Attention

For consistent and accurate reading, maintain periodical check by your CAS authorized dealer.	Avoid sudden shock to the scale. Internal mechanism could be damaged.	Attach the rubber pad to the bottom of the indicator. Elimination is possible.
		
Place the scale on firm and temperature consistent environment.	Keep the scale away from the electromagnetic generation devices. This may interfere with accurate reading.	
		

**Our Dealers :** CAS feels that each of its valued customers should get the best service available. Whether it's the initial installation of our product, maintenance/repair work, or simply answering questions about our products, CAS Corporation and all of its Authorized Dealers are highly trained to assist you with any need regarding CAS products.

## 2. Feature & Mainfunction

Feature
<input type="checkbox"/> Simple & Light & Portable.
<input type="checkbox"/> Easy Control
<input type="checkbox"/> Internal battery.
<input type="checkbox"/> Internal battery charger
<input type="checkbox"/> With Backlight
<input type="checkbox"/> Internal Printer

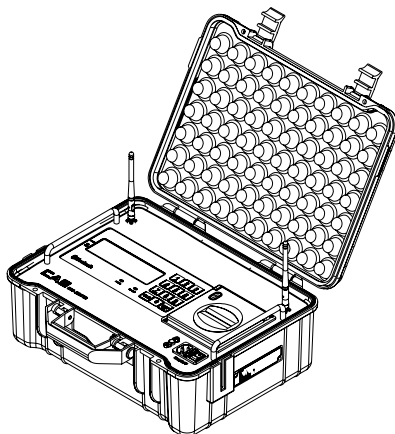
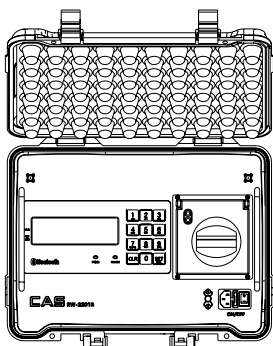
## 3. Technical Specification

### RW-2201B

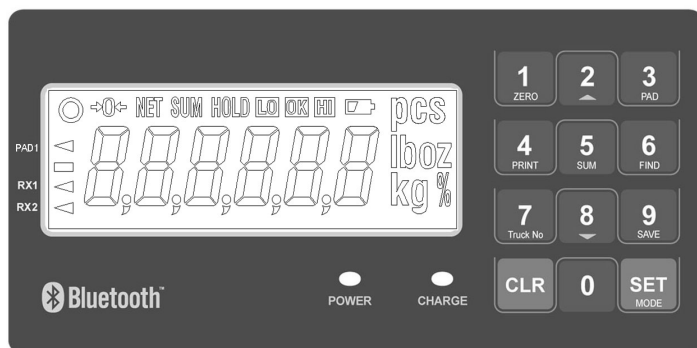
Digital & Display	
Display	LCD (6 digit + Sign)
Character size	24 mm (height)
Display under zero	"-" minus display
Display status	ZERO, STABLE, UNIT(kg)
Power	AC 220 V 50/60Hz
Operation temperature	-10 ~ 40
Wireless communication	Blue tooth
Composition	RW-2201B , RW-15B(2sets)
Product weight	About 10.6kg
Using time	About 48 hours
Charging time	About 24 hours

## RW-15B

Digital & Display		
A/D Speed	10 times/second	
External resolution	1/750( Max capa : 15t, 1d : 20kg )	
Using time	about 10hours(Continue comm.)	
Using key	Power ON/OFF	
Battery	4.8V(1.2V * 4EA), 1.3A (NI-MH)	
Inner Power / Power consumption	Inner Power : 3.3V / Power consumption : about 0.5 W	
Weight	About 27kg(except Ramp, Ramp Weight : 10kg)	
Communication		
Wireless communication	BLUETOOTH method (CLASS 1)	
Frequency	2.402 ~ 2.483GHz	
CHANNEL	78 CHANNELS(HOPPING method)	
Communication speed	9600bps	
Communication distance	Opensite : about 50M	At barrier place : about 30M
	Notice. Communication distance will be changed by circumstance.	



## 4. Front pannel



### ■ Display Lamp

Display	Brief	Description
⊙	Stable lamp	A Display this lamp at stable
⇨0⇩⇨	Zero lamp	Display this lamp at zero
SUM	Sum lamp	Display this lamp at sum mode
%	Percent lamp	Display capacity of battery (%)
⇩	RX 1	Display the status of PAD1 comm.
⇩	RX 2	Display the status of PAD2 comm.
⇩	PAD1	Display the weight of PAD1
🔋	Low battery lamp	Low battery lamp of RW-2201B
LO	Low battery lamp	Low battery lamp of RW-15B
Red lamp on printer	Power lamp of printer	Display the power-on of printer
Green lamp on printer	Self-Test lamp of printer	Display the ok or not ok of printer

## ■ Key Board

ZERO	
Short	Used to remove small vibration

PAD	
Short	Check the weight of each PAD
Long	Power off the all PAD (Display "OFF")

PRINT	
Short	Used to print and sum weight
Long	Used to lock print (To print, input the pre-setting password in F02)

Notice. Check first the setting mode before use this function. (F03->1).

SUM	
Short	Print all PAD weight of one vehicle

Notice. It can not print weight of all vehicle one day.

FIND	
Short	Find saved data

Notice. You can print data of saved data

TRUCK No.	
Short	To input vehicle number(4 digit)



SAVE	
Short	To save the weight of PAD ( Max 10 vehicle/ Max 4 PAD weight of one vehicle)
Long	To move next mode.

Notice. If you press this key very often, it will be saved data every time at other memory.

SET	
Short	To go next mode or to save data
Long	To enter SET mode

CLR	
Short	To erase data
Long	To enter TEST mode

## 5. TEST MODE

### How to enter TEST mode

Turn on Power while press 'CLR' key to enter test mode..

You will see message (connect ). Press 'SET' key and then move to test menu.

### TEST menu(TEST1 ~ TEST6)

TEST 1 : Key test

TEST 2 : Battery test of RW-2201B

TEST 3 : Load-cell test of PAD1

TEST 4 : Load-cell test of PAD2

TEST 5 : Clock test

TEST 6 : Print test

#### TEST 1

Key test													
Key	Function					Display					Description		
SET	Move to TEST2					tEst 1					This is status of TEST 1		
Other key	Operate test					1					Press key, display value of key code.		
key	1	2	3	4	5	6	7	8	9	0	CLR	SET	
code	1	2	3	4	5	6	7	8	9	0	A	b	

#### TEST 2

Battery TEST of RW-2201B													
Key	Function					Display					Description		
SET	Move to TEST3					tEst 2					This is status of TEST 2		
						6.00					Battery value of RW-2201B		

## TEST 3

Load Cell TEST of PAD1			
Key	Function	Display	Description
SET	Move to TEST4	tEst 3	This is status of TEST 3
		24750	AD value of PAD1

## TEST 4

Load Cell TEST of PAD2			
Key	Function	Display	Description
SET	Move to TEST5	tEst 4	This is status of TEST 4
		23564	AD value of PAD2

## TEST 5

Clock test			
Key	Function	Display	Description
SET	Move to time setting or TEST6	tEst 5	This is status of TEST 5
		06.11.09	dAtE : Display date.
		12.02.32	tIME : Display time

## TEST 6

Printer test			
Key	Function	Display	Description
SET	Move to weighing mode	tEst 6	This is status of TEST 6
		600d	Operate printer test

Notice. Output of print is below.

TEST OK
---------

## 6. SET MODE

### How to enter SET mode

Turn on Power while press 'SET' key or press long 'SET' key in weighing mode.

### SET Mode menu

Menu	Description
F01	Setting backlight
F02	Change the password
F03	Setting lock of print key
F04	Setting communication error message display
F05	Setting auto-save data at printing
F06	Setting number of using PAD
F11	Setting auto-print
F12	Setting line-feed
F13	Setting time

F01 (Setting backlight)				
Key	Function	Display	Value	Description
Other Key	0 ~ 3 key	F01	0	Always off
			1	At pressing key
SET	Save and exit the set mode		2	At changing weight
			3	Always on

F02 (Change password)				
Key	Function	Display	Value	Description
	Select 0 or 1	<b>F02</b>	0	To do not change password
SET	Save and exit the set mode		1	To change password
F02 = 1(To change password)				
Key		<b>PASS</b>	Display	
SET	Enter the password	— — — <b>0</b>	Input 4 number of password	
		<b>Good</b>		
SET		<b>PASS 1</b>	Input new password	
		— — — <b>0</b>		
SET		<b>PASS 2</b>	Retry input new password	
		— — — <b>0</b>		

Notice. Initial password is '1234' in factory

If PASS 1 is different from PASS 2, RW-2201B display error message 'Err 31', come back input mode of PASS1 .

F03 (Setting lock of print key)				
Key	Function	Display	Value	Description
Key	Select 0 ~ 1	<b>F03</b>	1	Use of lock
SET	Exit set mode		0	Don't use.

You must check F02 before this mode.

F04 (Display comm. Error message)				
Key	Function	Display	Value	Description
Key	Select 0 ~ 1	<b>F04</b>	1	Don't use.
SET	Exit set mode		0	Display comm Error .

F05 (Auto save setting)				
Key	Function	Display	Value	Description
Key	Select 0 ~ 1	<b>F05</b>	1	Auto save at print
SET	Exit the set mode		0	Manual save

F06 (Setting number of pad)				
Key	Function	Display	Value	Description
Key	Select 0 ~ 2	F06	0	Use 2 PAD
S E T	Exit the set mode		1	Use 1 PAD(Number 1)
S E T			2	Use 1 PAD(Number 2)

Notice. PAD number is written on spec-plate.

F11 (Auto print)				
Key	Function	Display	Value	Description
Key	Select 0 ~ 1	<b>F11</b>	0	Don't use this function
SET	Move the next mode		1	Only status of stable

Notice. If you select 1 of F11, this function is operated when the weight is over 1% max capacity.








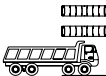
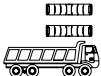


F12 (Line feed)				
Key	Function	Display	Value	Description
Key	Select 0,1,5	F12	0	0 line feed.
SET	Move the next mode		∫	∫
			5	5 line feed.
Format				Total Format
2006.11.24 14:32:54				--- TOTAL PRINT ---
Truck No.:1234				Truck No. : 1234
----- AXLE 1 -----				TOTAL AXLE. : 2
WEIGHT1: 12056 kg				TOTAL : 4234kg
WEIGHT2: 10150 kg				
-----				
AXLE1 TOTAL : 22206 kg				
` ----- AXLE 2 -----				
WEIGHT1: 2056 kg				
WEIGHT2: 4150 kg				
-----				
AXLE2 TOTAL : 6206 kg				
F13 (Setting time)				
Key	Function	Display	Value	Description
Key	Select 0or1	F13	06.09.18	Input date
SET	End of set mode		10.30.54	Input time

Notice. If date-input is done, it will be change mode of input- time.

## 7. How to measure vehicle

See the below picture. As you shown, you can weigh the vehicle four time

- 1) If vehicle is on the PAD, press print key because save the data and print data.
- 2) If weighing is done, you can ready next weighing. Also if vehicle is on the PAD, press print key. The reason is same.
- 3) Repeat 2 times.
- 4) Gross weight of vehicle : If weighing is all done, press sum key because RW-2201B print gross data (with 4 axel weight data)

Sort		1 step	2 step	3 step	4 step
2 A X E L	1) without dummy (2 PLATE)				
	2) use dummy (2 PLATE + 2 DUMMY PLATE )				
3 A X E L	1) use dummy (2PLATE + 12 DUMMY)				
4 A X E L	1)use dummy (2PLATE + 12 DUMMY)				

Notice : Even measuring by Dummy plate, error of the actual weight can happen.  
(The error range is +/-3% from the Maximum capacity)



## 8. Method of using(RW-15B)

### Using

#### POWER ON/OFF

1. POWER ON : Press power S/W for 2 sec.
2. POWER OFF : Press power S/W

#### POWER LAMP

1. LAMP OFF : This is status of power off.
2. LAMP ON : This is status of power on.
3. LAMP blinking : RW-15B is needed for charging.

notice. As you shown side picture,  
raised antenna help communication  
n far more than lay.



## 9. How to save data

### Method 1.

**1. If wheel of vehicle on pad, press save key.**

- “1 SAVE” is display. This means wheel weight save done .

**2. Repeat the procedure 4times (1 vehicle)**

**3. If you done, press save key long. Then It will show END message**

- This procedure is for save data. The result is saved weight of one vehicle.
- If you see the “FULL” message, memory is full.
- It has memory of 10 vehicle.

### Method 2

If you set 1 of F05, auto save function is used.

Auto save function is saved at print. It is done at Total print.

Notice . It is saved 4 axel weight data per vehicle.

If exceed 4 axel weight data, will overwrite old data.

## Search the saved data

**1. Press FIND key. “Then it will be show 0-XXXX.”**

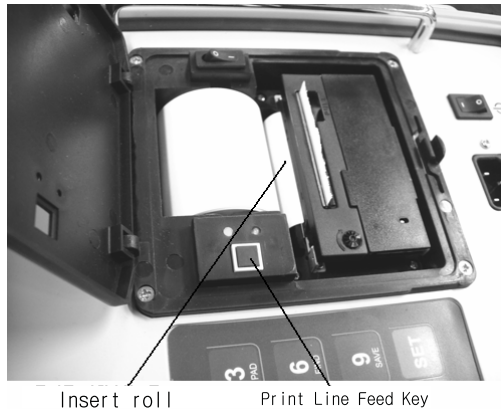
- First number means order of saving and second number means number of vehicle.

**2. Press 2 key or 8 key. It will be show save vehicle number.**

**3. If you find what you want vehicle number, press print key.**

**4. If you delete data, press CLR. All saved data is erased.**

## 10. Change printer roll.



As you show above picture, press line feed key after insert roll.

Then the paper is passing through cartridge. Press line feed key again. Then the paper is stop. This is done.



See above the picture. It is picture of removed cartridge.

If letter is not clear, you must change cartridge.

Method of change is very simple. Hold on the cartridge and pull up.

## 11. Error message & Trouble shooting

No	Reason	Trouble shooting
t1-out t2-out	Fail to communication t1-out : PAD1, t2-out : PAD 2	Too far or many barrier. Get close or remove barrier.
Err2-1 Err2-2	A/D value is wrong Err2-1 : PAD 1, Err2-2 : PAD 2	Check the pad power. Then operate TEST3, TEST 4. Check A/D value
Err 11 Err 12	Over the initial zero range. Err 11 : PAD 1 , Err12 : PAD 2	Clear on the pad. Initial zero range is within 20% of Max weight.
Err 30	Entered password exceed 4 numbers.	Input only 4 number.
Err 31	Entered password is different from old password.	Enter new password again.
Err 50	Internal memory is erased	Call your CAS dealer
BT-Err	Fail to communication	Retry communication.
OUER 1	Over the max weight of PAD1	This may damage load-cell. You must reduce the weight under the max capacity.
OUER 2	Over the max weight of PAD2	This may damage load-cell. You must reduce the weight under the max capacity.
batt	Low battery of RW-2201B	You must recharge the RW-2201B.

## MEMO

## MEMO

# RW-2201B

Vehicle Weighing Scale



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